Universidad de Valladolid

GRADO EN EDUCACIÓN PRIMARIA

MENCIÓN LENGUA EXTRANGERA INGLÉS

TRABAJO FIN DE GRADO

"CLIL AND ACTIVE METHODOLOGIES"

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KEY WORDS

AICLE/ CLIL
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INVESTIGACIÓN/ INVESTIGATION
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EVALUACIÓN/ ASSESSMENT

ABSTRACT

En este trabajo podremos encontrar una forma de poner en práctica las diferentes metodologías activas que se pueden usar en el campo de las ciencias y de la investigación en primaria, usando a la vez la metodología AICLE y un método de evaluación basado en las competencias básicas de la LOMCE.

In this study we can find another way to take into account the different active methodologies in our lessons, more exactly, in the science and investigation field at primary school, using at the same time CLIL methodology and a assessment based on the key competences of LOMCE.

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1. 1JUSTIFICATION

Lately I have been working as a training teacher, and I have been able to check how schools are changing through active methodologies, to allow children to participate and take part in their own learning process. Due to this I have decided to focus my TFG on this type of methodologies, especially CLIC methodology because it is part of my field.

Personally, I think that teaching a subject in a foreign language is useless if it is not enforced by other more active methodologies, in which students may be involved completely in that language, using it in linguistic and full communicative contexts, instead of becoming just listeners.

Because of this reason, I will do some researches in methodologies I have learnt in my studies and specially along my teachers training period, taking into the count authors and theories which are based on methodologies I have referred above and finally being able to practise them in a real school context.

1.2 GRADE COMPETENCES

Keep the First competence of the grade in mind Learning and Personality Development, Educational Processes and Contexts and Family and School Society.

At the time of planning the unit I have taken into account the characteristics of the students in terms of age and previous knowledge, focusing also the different learning processes, establishing different levels of complexity progressively in each task. Taking into account also the heterogeneity of the classrooms.

With respect to educational processes and contexts, the didactic proposal includes successive small tasks directed towards a project or final task that encompasses the knowledge of the whole unit using active methodologies integrated within the scientific method with the purpose of developing hypotheses while they use a wide variety of methodological and digital resources.

As regards family society and school, the didactic proposal tries to introduce digital tools at an early age for educational purposes through group tasks, in order to get accustomed to using ICT as tools of work and communication between family- School-student.

As for the didactic-disciplinary aspect I will focus on the subject of Teaching and Learning of Experimental Sciences as it is in this matter in which the unit is focused which seeks to build scientific knowledge, starting from the observation and experimentation of everyday processes, in order to understand the world around us and verifying at all times through an evaluation rubric the progress of each student.

To conclude the last module of competences is about the specialty. In my case, it is an English Language, where throughout the work you can check the linguistic knowledge and the use of methodologies such as Total Physical Response in order to accompany words through nonverbal language.

You will also verify that the unit is correctly planned, following the scheme that marks the LOMCE, using different didactic theories and using active methodologies that require the use of the language taking into account all the linguistic abilities.

1.3 METHODOLOGY OF THE REPORT

I began to do this work from observation and contrast, since I had already had other CLIL experiences in the past but through traditional methodology.

In my second practice period, I was able to see how children's motivation towards learning increases only by changing the methodology, so I decided to raise this issue, how to implement the CLIL methodology in a more enjoyable and at the same time more effective way.

After checking the results of these more active methodologies, the next step was to get in touch with the theoretical currents on which they are based. This was not very difficult, since throughout the grade we have worked a lot with them.

From there, I got in touch with different types of methodologies. The next step was to select the contents that the unit would contain according to LOMCE. And from there I selected the methodologies that adapted to the contents in a better way to design the different tasks of the didactic proposal.

For this reason, it could be said that I followed a research methodology in which I identified a problem through observation, and then investigated other trends and didactic methodologies that I later put into practice, valuing very positively the results.

1.4 AIMS OF THE REPORT

1-Realice that learner has to be the main character in their own learning.
2-Know different methodologies and their uses.
3-Know different kinds of designing didactic proposals, applying the theoretical knowledge and tools acquired along the grade.
4-Realize of the traditional methodology troubles.
5-Introduce transdisciplinary contents of a global way.
6-Know another assessment way based on learning evidences.
7-Realize of the importance of the non-verbal language at planning time.
8-Improve the learner motivation through achievable goals and task.

2. AUTHORS AND THEORIES

• INTRODUCTION

To talk about methodologies, first of all has to talk about the theories in which are based this methodologies. The most important authors in which I have based my didactic proposal are Jean Piaget through cognitive development, Howard Gardner through multiple intelligences, Vygotsky through constructivism learning, Wood by scaffolding theory and Bloom which according which his taxonomy we can order the sequence contents with a logic progression.

• JEAN PIAGET

I want transform the passive learners to active learners. To do this, I have focused my attention on Piaget´s theories, given that, Piaget saw the child as constantly interacting with the world around him. Solving problems which are presents by the environment. When the pupil takes action to solve a problem, this knowledge has been actively constructed by the child.

I will use this learning through the jigsaws, the experiments, and the other leading activities with the aim to covert the knowledge in their own problem which they will have to solve. In this way the student will be personally involved in order to solve the problems; therefore they will be involved in their own learning process.

For Piaget also is fundamental to cognitive development. In Piagetian psychology there are two ways in which development can take place as a result of activity: assimilation and accommodation. Assimilation happens when we take new information or experiences and incorporate them into our knowledge base. Accommodation refers to part of the adaptation process. This process involves changing one's existing schemas or ideas, as a result of new information or new experiences. This new learning in order to ensure that what's inside your head conforms to what's outside in the real world.

This theory will be applied through the brain storms on the carpet to elaborate the mind map of the unit. They will assimilate the new knowledge from their previous ideas, after they will have to organise all information in the mind map accommodating of this way the new information and modifying old schemes.

- **HOWARD GARDNER**

According to **Gardner´s theory (1983)**, each individual possess eight or more relatively autonomous intelligences.

Bodily-kinesthetic intelligence: I like encourage this intelligence through the Total Physical Response methodology liking the verbal language with the non-verbal language, also this intelligence will be developed in the carpet or physical space with dramatizations, performances, making experiments...

Interpersonal intelligence: Mainly this intelligence will be developed through cooperative learning techniques, but also through big group activities like the mind map, this mind map will be done by all pupils in the carpet sharing their previous knowledge.

Intrapersonal intelligence: The main activity to encourage this intelligence will be the **"Mindfulness",** some techniques to pay attention to our feelings. Pupils also work individually, through individual tasks after doing cooperative tasks, with the aim to fix their own knowledge.

Musical intelligence: It will be worked with songs linked to dances (Bodily-kinesthetic intelligence) which appear in the student´s books.

Spatial intelligence: Pupils will focus the video in the final task, furthermore, we use visual aids as grids, charts, displays, mediators and pictures.

Linguistic intelligence: This intelligence will be developed through CLIL and Communicative Language Teaching methodologies.

Logical-mathematical intelligence: This intelligence will be developed through investigation method. They will have to explore patterns, argue and asking questions,

make hypothesis, categorize and working with patterns… starting with experiments about the unit´s contents.

Naturalistic intelligence: They will have to link the classroom experiments with natural phenomena about their daily lives.

To conclude, Howard Gardner's theory of multiple intelligences gives us a different framework for teaching and thinking in the classroom. The main goal of Gardner's theory is to get the development of the key competences.

- **VYGOTSKY**

I want to apply the main ideas of Vygotsky, Gardner, Piaget and Bruner´s theories about the language acquisition process in order to develop thinking in our learners, using language properly and also using the different resources such as mediator.

The main aim is to apply part of the theories and put them into practice in the classroom, making the pupils become independent learners gradually.
LANGUAGE ACQUISITION THEORY: Vygotsky's theory of language is based on constructivist learning, which asserts that children acquire knowledge as a result of engaging in social experiences. For him, learning can lead development, and development cannot be separated from a social context.

For this reason, I want that the pupils through a regular socialization, using cooperative learning techniques in which they will have to talking about how to do the tasks with their classmates. They get a wide cognitive development.
Also this theory will be used through the interactions between pupils and teacher to structure the contents in the mind map.

Language also plays a central role in mental development. Vygotsky gives great value to assist children to develop strategies rather than intellectual capacities. That's why encouraging people to draw their own experience, to talk to each other about it, to write about it and even to talk to themselves about it, enables them to move towards the independent learners.

DISCURSS KINDS: Vygotsky's theory of language and though can find several sort of speech. Everyone is necessary to analyse because are essential to develop a task.

PUBILC SPEECH: Exchange communicative between two or more people.

I will use this discourse through mind map interactions, through cooperative learning, through show and tells (final task), sharing our task...

PRIVATE SPEECH: Internal speech, when the people talk aloud to themselves. Vygotsky believed that children who engaged in large amounts of private speech are more socially competent than children who do not use it extensively.

INNER SPEECH: Speak with yourself. Inner speech is not an internal aspect of talking; it is a function in itself.

I will use this technique through mind fullness every Thursdays.

VERBAL THOUGHT: The way of thinking, due to your own culture.

PROXIMAL DEVELOPMENT ZONE: Vygotsky proposed that learning depended the zone of proximal development (**PDZ**), this is the area between the "independence performance" (learner can do on their own) and "assisted performance" (learner can do with the help of an adult or another peer).

Cooperative methodology wants to achieve this zone through their own partners, this theory is more effective if they overcome their **PDZ** between them, but also I will to help them whenever it is necessary.

SCAFFOLDING THEORY: It was introduced by Wood. Scaffoldings with the aim to pass from assisted students to independent students. It is what pupils are going to do with the different tasks, remove the scaffold whenever we can, so pupils can learn with autonomy. Therefore, children will be able to construct their own knowledge.

I will use this theory through individual task after they had done similar cooperative task.

Also Wood suggests that the teacher can scaffold children ´s learning in several ways: attend to what is relevant, adopt useful strategies and remember the whole task and goals.

ACTIVE LEARNING: According to Vygotsky, children who are encouraged to engage in enjoyable activities develop better than those whose teachers focus only on academics task. Vygotsky claimed that, "a child's greatest achievements are possible in a play, achievements that tomorrow will become his basic level of real action."

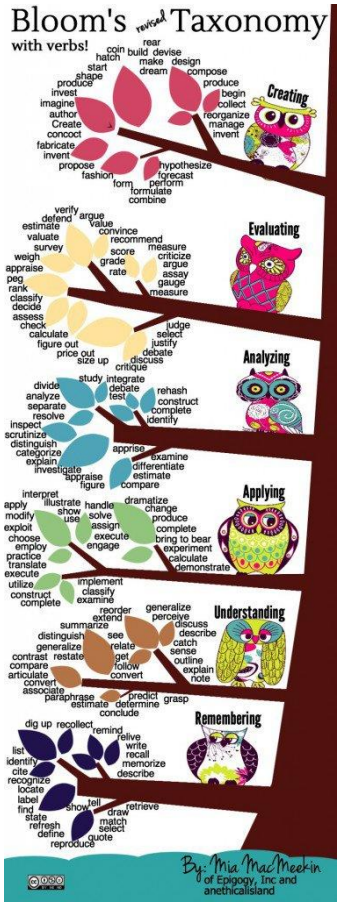
I like much this theory, for this reason I will transform the theoretical contents of the unit into practical contents through experiments in which pupils will can prove that book´s contents are true.

MEDIATORS: On the other hand, a tool that helps us to make learning for children easier is the mediators. Its function is simple: mental instrument that child uses to carry out an activity. They enable the child to be independent. Sometimes we use them as reminders. A watch is a mediator to remind us when to start an activity, when to stop, etc. Also, using the mediators the teacher gives children the base to develop their knowledge, first in an assisted way, and eventually, individually.

I will use mediators like countdown timer, mind maps, videos, guide sheets, PowerPoints, timetables, self-assessment sheets and assessment rubrics.

- **BLOOM´S TAXONOMY**

Benjamin Bloom did a hierarchical and systematic classification whose aim is to classify every cognitive skills that humans have. Being a hierarchical classification, Bloom stablished different sequence levels, which humans have to try to overcome with the aim of achievement to dominate these abilities with autonomy. In the next picture we can see how hierarchical this classification is.



I will use this hierarchical classification to focus on the learning progression of my didactic proposal, starting since the previous knowledge and simple contents, to achieve understand real event more complex which pupils could identify in their daily life.

3. CLIL

• INTRODUCTION

European commission defines "Content and Language Integrated Learning (CLIL), in which pupils learn a subject trough the medium of a foreign language…" (One Stop English Magazine) "CLIL is about using languages to learn…It is about installing a 'hunger to learn' in the student, It gives opportunity for him/her to think about and develop how s/he communicates in general, even in the first language". (Marsh, Marsland & Stenberg, 2001). There are many different ways of implementing Content and Language Integrated Learning (CLIL).

In CLIL, the foreign language (FL) is used for instruction and communication, learning the language and learning the contents are part of the same process. For this reason, contents, communication, cognition and culture, the 4Cs, are the key of the process as well as a good combination of the language skills.

CLIL encourages teachers to use a "learning by doing" approach, as well as the development of the Multiple Intelligences.

• MAIN FEATURES

It´s important clarify some aspects linked to put in practice CLIL methodology:

1- Language is used to learn the subject contents but also to understand and communicate with it.
2- Language contents are determined by the subject. (Vocabulary, structures and discourse).
3- In general form, fluency is more important than use correct grammar.

Also it´s important focus on the features of the language before to develop the lesson:

1- Specific vocabulary or expressions and difficult pronunciation words.
2- Modal verbs and the time.
3- Kind of sentences and their difficulty.
4- Grammar aspects (comparative, connectors, prepositions, adverbs…)
5- Discourse (Informative, descriptive, argumentative, comparative, instructive…)

6- Communicative skills that are used.

• ELEMENTS AND CHARACTERISTIC

1- EASE

Pupils have to be involved, and the teacher has to take into account the context and necessities of the pupils with the aim to facilitate the understanding of the contents. We can do this using real examples or starting since simple things to more complex things.

2- FLEXIBLE

How I said before learning has to be easy and flexible, and we can achieve this adapting the texts to the pupil's age, using activities to improve the comprehension, alternating the maternal language with the foreign language if it´s necessary and using other strategies like mind maps, non-verbal language and use the scaffolding that could be necessary.

3- INTERACTIVE

How I have been saying since the beginning this method has to be accompanied with active methodologies in which pupils can interact with their partners and teacher using the foreign language. The cooperative learning, debates, brain storms are good methods to use CLIL.

4- AUTONOMY

Pupils have to learn by them-selves, for this reason the Task Based Learning or the Investigation methods help us. Pupils have to do some task or some investigation with a rubric, the rubric is the teacher tool to evaluate but is also the pupil guide to do the task. These methods promote the autonomy learning.

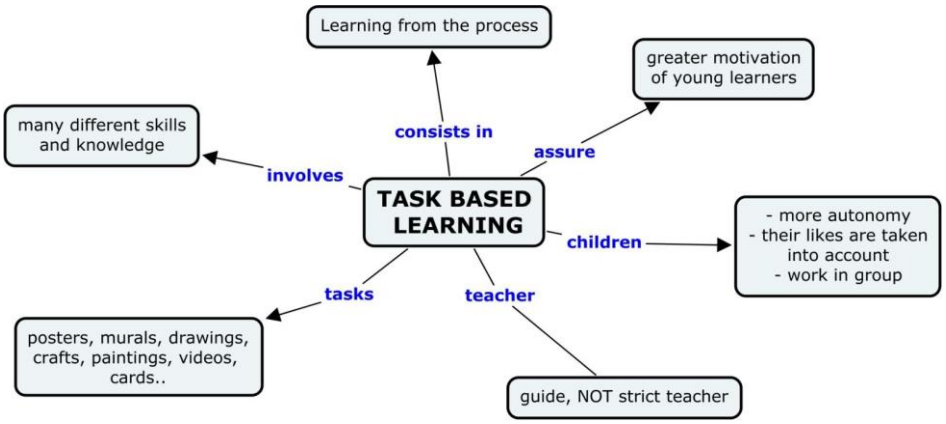
5- RESOURCES

Other important feature is the use of multiples resources and materials, one of the best resources are ICTs like different apps, blogs, wiki, virtual platforms… which make a perfect combination with active methodologies and promote the improvement of every language skills listen, speak, read and write.

4. ACTIVE METHODOLOGIES

How I said before, CLIL methodology has to be accompanied by other methodologies in which pupils can use actively the foreign language in real context, learning it of this way. The methods which I´m going to use on my didactic proposal, will be Task Based Learning, Investigation Method, Cooperative Learning, CLIC, Total Physical Response and Communicative Language Teaching or Communicative Approach.

- **TASK BASED LEARNING**



According to TBL, students learn through direct experience of language in use and through the use of language for themselves.

This unit will be developed through little tasks; each lesson will have a leading activity which pupils will have to do through **Cooperative Learning**. Finally they will have to do a Final Task which involves the **global learning of Decroly and Ausubel**.

Also, the learning is pretended to be acquired by a meaningful way, based on what they know and as to advance new contents and knowledge, as constructivist currents propose, and linking this knowledge to their real life. Thus, as it can be seen in the final

task, it is enhanced the ideas that could be better for the student in his/her daily life. As you can see, all this is done through **personal work** based on the principle of **Fröebel**, so as to contribute to the **self-learning** of the students.

- **COOPERATIVE LEARNING**

I will use the informal cooperative learning techniques, in this unit, because pupils are too little and they have to start with simple techniques. They are composed by different structured techniques in which pupils know what they have to do in each moment. Their goals are achieved in shorts periods of time and their cognitive processes are highly defined.
The techniques, which I will use, are Pencils in, Jigsaw and Think Pair Share (TPS).

THINK, PAIR AND SHARE: By Spencer Kagan.

The aims of this technique are answer questions, exercises and troubles, active the previous knowledge, every pupils acquire all information, synthesize the contents, check the learners comprehension and clarify doubts, check them and contrast answers.

Steps:

1- Groups of 4 and numerate them.
2-Teacher asks a question.
3-Pupils think the answers by them-self.
4-Share their ideas with their partners.
5-Teacher choose a number and this pupil will share the information with the big group.

I will use this technique when the pupils will have to think a real example about the experiments of the different topics of the unit.

PENCILS IN: By Nadia Aguilar y María Jesús Talión.

The aims of this technique are answer questions, exercises and troubles, active the previous knowledge, every pupils acquire all information, organize the work, reflect about the best way of doing the task and clarify doubts, check them and contrast answers.

1- Groups of 4
2- Choose the moderator of the group.
3-Teacher asks a question or propose an exercise.
4-Pupils put their pencils in the middle. They can talk but they cannot write. (Share the information).
5-Moderator:
-Read the exercise.
-S/he ensures that each member express their opinions.
-Check that everybody understands the agreed answer.
6-Each pupil takes his/her pencil and writes the answer individually.

I will use this technique to do some exercises about the topic.

JIGSAW: A Robert Slavin adaptation of Aronson method.

The aims of this technique are submit content, develop investigation works, promote individually work and self-regulation, promote oral skills, search and organize information and promote the mutual support.

1-Groups of 4.
2-Each member will be the expert of some subtopic about the topic.
3-Experts invest and work about their subtopics.
4-Experts come back with their groups and they share the information.
5-Group builds the topic.

I will use this technique to strengthen the experiment contentents.

ROTATING SHEET: By Spencer Kagan.

The aims of this technique are create ideas through other ideas and identify the main idea.

1-Group has a sheet
2-Each member have few minutes to write their ideas
3-Once finished the time; pupil will have to pass the sheet to the next partner.
4-Every member will have to write their ideas.

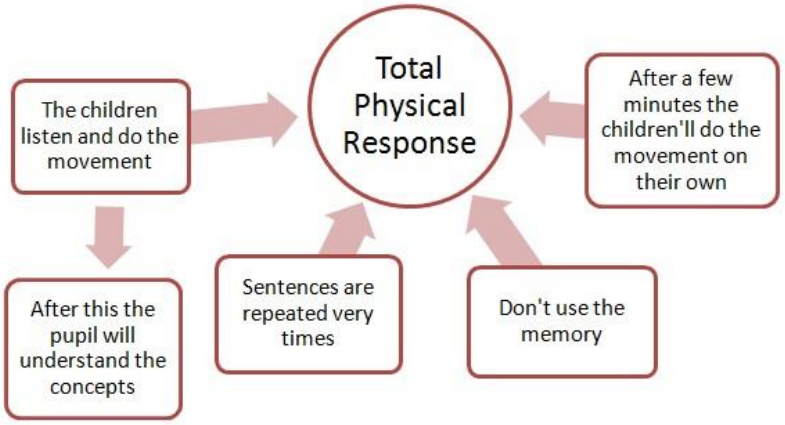
I will use this technique to remind the unit at the end.

- **INVESTIGATION METHOD**

The aim of this method consist on connect the contents with their daily life's. Also this method tries to find answers to solve problems, regulating their internal though. Pupils will have to make hypothesis, check this hypothesis and form judgments.

- **TOTAL PHYSICAL RESPONSE**

Is a teaching method developed by J. Asher. It is based on the assumption that acquisition is more effective when listening is followed by a physical response. It basically consists of obeying commands given by the teacher. Although it is used to develop oral competence in early stages of learning, it can be used to practice many things in upper-levels, for example, connecting vocabulary with actions.



This sort of activities minimizes the stress during the learning process through physical activities and games, good for kinaesthetic learners who need to be active in class. We help learners to remember by linking the actions with verbalizing we help learners to remember.

- **COMMUNICATIVE LANGUAGE TEACHING**

Is based on beliefs that learners will learn best if they participate in meaningful communication. This method focuses on communication and promotes interaction; spoken interactions –listening and speaking- are regarded, at least, as important as reading and writing.

It is 'learner-centred' teaching which places the child at the centre of teacher thinking and curriculum planning; this way of teaching emphasizes a variety of different types of methods that shifts the role of the instructors as a mediator of the teaching learning process, making the education easier for students.

5. UNIT:

"WE INVESTIGATE THE MATTER"

- **INTRODUCTION**

This unit will be developed in the 2nd term of 2rd course of Primary Education in a Spanish bilingual school. The name of the unit is "We investigate the matter" and their contents will be divided in 4 big parts. Materials and their properties, state changes, forces and sounds transmission. I have based this unit in the contents of the unit 5 of the "Natural Science Book", second year of Savia of SM. (University of Dayton Publishing, 2015).

The contents of the first topic (Materials and their properties) are more concretes and easier to assimilate, for that we will introduce the theme making a big mind map on the carpet in a big group, where we will express the contents, using different types of materials and invest its, connecting this topic with their daily life. Once known the contents, we use our knowledge to do some experiments about the properties of the materials. This will be made by experiments so that the children could see and verify the contents of the unit.

The other topics will be developed contrary to the first topic, because the contents are more abstract and difficult to explain through the oral method. For this reason we will use the investigation method through experiments, in which we can see the contents to express them in the mind map later. The investigation method will be guided through rubrics and sheets which help pupils to make hypothesis and make conclusions.

It is planned for Science but it is linked with Literacy and Arts and crafts, so that we are doing an interdisciplinary work. The final task we have planned for Science will be a field notebook where they will have to collect up their process, their hypothesis and

their conclusions about the experiments, but also they will have to collect up all little tasks and the learning pills (things that they have learnt) of each day.

It is linked with Arts and crafts through recycling, reusing and reducing materials. They will have to build a toy reusing materials that they needn't, recycling the materials which are left over and reducing materials using also those materials that are really necessary. After, they will have to describe their toy using the structures and the vocabulary of science.

Literacy contents are linked just with science through the vocabulary. The topic of the unit is “My bedroom” and the final task will be a descriptive text about their bedrooms using There is/are, I like…, this/these that/those. And they will have to recorder a video in their bedrooms describing it.

The whole unit will take approximately 10 lessons, of 45, 55 or 60 minutes each lesson depending the day. There are 18 pupils in the class.

Work this unit offers opportunities for children to relate scientific knowledge and understanding to familiar phenomena (why do we use some materials to build something and other materials to build other things? how to affect the state change in our life? Where can we find the influence of the forces in our daily life? How can we transmit the sounds?) and to consider scientific evidence about the matter, the forces, the state changes and the sounds transmission.
Through this unit children are going to consolidate their ideas about:

Matter: materials and their properties.
Matter states and their changes.
Influence of the forces in our lives.
Sound: origin and propagation

- **DEVELOPMENT**

LESSON 1 (Monday 55 minutes)

Start time:

Everybody is in his/her site, and says hello.

Main activities:

Everybody is in the carpet and we introduce the topic "The Matter" through questions like: What the matter is? Where can we find the matter? What are the materials? How many kinds of materials are there?...

After the teacher gives to the pupil's different materials (wood stick, wool, jumper, book, paper, cotton, glass, minerals) and asks them to their properties.

Once the topic has been introduced, teacher starts to do the big mind map with the pupils about the materials and the properties.

In little groups, pupils will have to choose an object, draw this object and describe it using the structures and new vocabulary

-It's…

-It's made of…

-His origin is natural/ artificial.

-It comes from mineral/animals/plants or it comes from natural things by humans transform them.

-It is hard/ soft.

-It is heavy /light.

-It is opaque/ transparent.

-I use it to…

At the end of the class we will do the exercises of science book using the cooperative techniques (pencils in, pencils out).

Farewell moment:

Organize the class and say goodbye.

LESSON 2 (Tuesday 45 minutes)

Start time:

Everybody is in his/her site, and says hello.

Every Tuesdays we start the day with a mindfulness to delve into our feelings.

Main activities:

At the beginning we will start the lesson explains how to do the main activity, the jigsaw about materials.

In four zones of the class there will be four objects (plastic glass, metal bowl, wool jumper, dicks makeup removers).

Each pupil of each group will be an expert of each object, and they will have to study each object and fill the worksheet of his/her object about their properties.

After each pupil will have to explain his/her objects to his/her partners and fill the worksheet among all.

Once finished the jigsaw, we will check among all.

At the end pupils individually will have to describe his/her objects using the last lesson structures.

-It's…

-It's made of…

-His origin is natural/ artificial.

-It comes from mineral/animals/plants or it comes from natural things by humans transform them.

-It is hard/ soft.

-It is heavy/ light.

-It is opaque/ transparent.

-I use it to…

Farewell moment:

Organize the class and say goodbye.

LESSON 3 (Thursday 1 hour 30 minutes)

Start time:

Everybody is in his/her site, and says hello.

Main activities:

In this lesson there will be a circuit of three experiments about materials properties.

-First experiment (heavy/light):

Pupils will have to introduce two balls in a water container.
The first ball is a pin-pon ball and floats.
The other ball is a plasticine ball and sinks in the water.

-Second experiment (hard/soft):

Children will have to rub a wooden table with a rock and after with a plasticine ball.

-Third experiment (opaque/transparent):

Children will have to try to pass the light of a torch through a glass of water or through the wooden table to illuminate the black cartuline.

To do this activity, we will use the two lessons but the half of pupils will do the arts and crafts activities while the other pupils do the experiments.

The circuit will be carry out of this way; each group will do an experiment, they will have ten minutes to do the experiments and five minutes to answer the worksheet questions of the experiments and to describe a real example of the experiments.

At the end of the class everybody shares the answers and his/her real examples with the rest of the class to check it. And they will have to do a little self-assessment for introduce how to do the self-assessment.

Farewell moment:

Organize the class and say goodbye.

LESSON 4 (Friday 2 hours)

Start time:

Everybody is in his/her site, and says hello.

Main activities:

In this lesson there will be a circuit of three experiments about change states of the matter.

-First experiment (dissolving salt and sugar in the water):

Children will fill the glasses of water and will taste it.

Children will introduce sugar in one glass and salt in the other glass without stir.

Children will stir the glasses and taste it.

-Second experiment (changes the water into vapour and changes again into liquid):

Children will heat the water and put the mirror on the vapour to condensate it.

-Third experiment (changes the ice into liquid with salt):

Children will put an ice stone in each plate, but in one they will have to add salt.

To do this activity, we will use the two lessons but the half of pupils will do the arts and crafts activities while the other pupils do the experiments.

The circuit will be carry out of this way; each group will do an experiment, they will have ten minutes to do the experiments and five minutes to answer the worksheet questions of the experiments.

After, everybody shares the answers with the rest of the class to check it.

They will have to think a real example of the experiments in groups using cooperative techniques (Think pair and Share) and after they will have to describe it in a paper.

The next activity will consist on watch a video about change states and stop the video when it contents appear.

After video we will introduce the new topic into the big mind map.

Later we will do the Science book exercises using pencils in pencils out in groups.

At the end of the class they will have to do a little self-assessment for introduce how to do the self-assessment.

Farewell moment:

Organize the class and say goodbye.

LESSON 5 (Monday 1 hour 50 minutes)

Start time:

Everybody is in his/her site, and says hello.

Main activities:

In this lesson there will be a circuit of five experiments about forces.

-First experiment (push and stop):

Children will play to pass and stop the ball.

-Second experiment (change of shape objects):

Children will play with the plasticine making shapes.

-Third experiment (magnets):

Children will move a metal ball with magnets.

-Fourth experiment (gravity):

Children will have a little earth with a magnet into it.

Children's trough small metals on the little earth simulating the gravity earth.

-Fifth experiment (push and gravity)

Children will push up a balloon with a hair dryer.

To do this activity, we will use the two lessons but the half of pupils will do the arts and crafts activities while the other pupils do the experiments.

The circuit will be carry out of this way; each group will do an experiment, they will have ten minutes to do the experiments and five minutes to answer the worksheet questions of the experiments and to describe a real example of the experiments.

Later everybody shares the answers and his/her real examples with the rest of the class to check it.

Later we will introduce the new topic into the big mind map.

After we will do the Science book exercises using pencils in pencils out in groups.

At the end of the class they will have to do a little self-assessment for introduce how to do the self-assessment.

Farewell moment:

Organize the class and say goodbye.

LESSON 6 (Tuesday 45 minutes)

Start time:

Everybody is in his/her site, and says hello.

Every Tuesdays we start the day with a mindfulness to delve into our feelings.

Main activities:

At the beginning we will start the lesson explains how to do the main activity, the jigsaw about forces.

In four zones of the class there will be four experiments of the previous lesson about each kind of force (Push and Stop, Change of shape, Magnets and Gravity).

Each pupil of each group will be an expert of each kind of force, and they will have to study each force and fill the worksheet of his/her force about their properties.

After each pupil will have to explain his/her force to his/her partners and fill the worksheet among all.

Once finished the jigsaw, we will check among all.

At the end pupils individually will have to describe his/her force using the last lesson structures.

-It is (name of force)

-It is (contact/non-contact) force.

-It is produced by (Living things/Magnetism/Gravity)

-It can (Move and brake objects/Attract objects to the ground/Attract metal objects without touching them)

Farewell moment:

Organize the class and say goodbye.

LESSON 7 (Monday 1 hour 30 minutes)

Start time:

Everybody is in his/her site, and says hello.

Main activities:

We will start the lesson with a thinking routine sheet (What do I know? /What do I want know? / What have I learned?), just we will fill the first and the second part; What do I

know about what the sound are? / How the sounds can travel? / What the properties of sounds are?

In this lesson there will be a circuit of four zones of experiments about sounds.

-First zone (How can the sound travel through the air?):

-First experiment:

A child will have to talk through hollow tube and other child will have to listen.

-Second experiment:

A child will have to play a small guitar in front of a plastic paper and observe how the waves move the plastic paper.

-Second zone (How can the sound travel through solid matter?):

A child will have to do a rhythm stepping the ground, in the hall, with the door closed, and the other children, in the class, putting their ears on the ground they will have to listen and memorize the rhythm.

-Third zone (How can the sound travel through the water?):

-First experiment:

A child will have to introduce his/her head into a water container and talk, and the other child will have to listen and try to understand him/her.

-Second experiment:

A child will have to put his/her ear on a water balloon and other child will have to knock a rhythm on the table and the other will have to listen the rhythm.

-Fourth zone (Sound properties):

In this zone there will be some flutes and the children will have to play it with different loudness and pitch.

To do this activity, we will use the two lessons but the half of pupils will do the arts and crafts activities while the other pupils do the experiments.

The circuit will be carry out of this way; each group will do an experiment, they will have ten minutes to do the experiments and five minutes to describe a real example of the experiments.

Later everybody shares his/her real examples with the rest of the class to check it.

After each pupil individually will have to finish the last part of the thinking routine (What have I learnt?)

Later we will introduce the new topic into the big mind map.

At the end we will do the Science book exercises using pencils in pencils out in groups.

Farewell moment:

-Organize the class and say goodbye.

LESSON 8 (Friday 1 hour)

Start time:

-Everybody is in his/her site, and says hello.

Main activities:

At the beginning we will start the lesson explaining how to do the main activity, the script of the final task video.

Start to do little groups, the script sheet.

-The topic that we have chosen is…

-The experiment that we have chosen is about…

-The materials that we need are…

-Step 1: First…

-Step 2: After…

-Step 3: Finally…

Once finish the script pupils will have to show the script to the teacher to check the mistakes.

Later pupils will have to think how to do the video.

At the end they will have to rehearsal the video.

Farewell moment:

Organize the class and say goodbye.

LESSON 9 (Monday 55 minutes)

Start time:

Everybody is in his/her site, and says hello.

Main activities:

At the beginning we will start the lesson explaining how to use the tablets to record the video.

After, each group with a tablet will have to record the video.

Once finish the video they will have to show the video to the teacher to check it.

Later, they will have to up load the video to YouTube.

Once the video is up loaded to YouTube they will have to do the QR code and paste it in the big mind map in the correct part.

Farewell moment:

Organize the class and say goodbye.

LESSON 10 (Monday 55 minutes)

Start time:

Everybody is in his/her site, and says hello.

Main activities:

At the beginning we will start the lesson asking questions about the unit with the big mind map on the carpet to remind whole unit.

After, pupils will have to fill the gaps, of a little mind map about whole unit, using cooperative techniques (Rotating sheet).

Finish the Science book activities using pencils in pencils out and check it.

Farewell moment:

Organize the class and say goodbye.

- **ASSESMENT**

The assessment of this with will be lesson by lesson, evaluating through a rubric each leading activity of each day. Pupils will have the rubric to know what they have to do.

Also in some lessons pupils will have to do a self-assessment but this assessment will not have validity as part of the assessment. It is including in the rubric, because we want to introduce this kind of assessment little by little. The aim of this assessment is learn the standards to make an objective assessment to other years.

- **RUBRIC**

	EXCELLENT	GOOD	NEED TO IMPROVE	BAD
Describing materials	Use the structures to describe the materials correctly to build meaningful sentences.	He/she differentiate the main characteristic and properties about materials and try introduce them in complete sentences.	He/she differentiate some characteristic and properties about materials.	He/she is not able to differentiate the main characteristic and properties about the materials
Jigsaw about materials	He/she is able to know the characteristic and properties about all materials of the activity and helps and leads their partners.	He/she is able to know the characteristic and properties about all materials of the activity.	He/she is able to know the characteristic and properties about his/her material but is not able to know the characteristic about their partner's materials.	He/she is not able to know the characteristic and properties about his/her material.
Experiments about materials	He/she is able to think a real example about the experiments.	He/she is be able what happens in the experiment and understand why.	He/she is be able to understand what happens in the experiment, but is not be able to understand why.	He/she is not able to understand what happens in the experiments
Experiments about matter changes.	He/she is able to think a real example about the experiments.	He/she is be able what happens in the experiment and understand why.	He/she is be able to understand what happens in the experiment, but is not be able to understand why.	He/she is not able to understand what happens in the experiments
Experiments about forces	He/she is able to think a real example about the experiments.	He/she is be able what happens in the experiment and understand why.	He/she is be able to understand what happens in the experiment, but is not be able to understand why.	He/she is not able to understand what happens in the experiments

Jigsaw about forces	He/she is able to know the characteristic about all materials of the activity and helps and leads their partners.	He/she is able to know the characteristic about all forces of the activity.	He/she is able to know the characteristic about his/her force but is not able to know the characteristic about their partner's forces.	He/she is not able to know the kind of force, his origin and his effects.
Describing forces	Use the structures to describe the forces correctly to build meaningful sentences.	He/she differentiate the main characteristic about the different forces and try introduce them in complete sentences.	He/she differentiate some characteristic about the different forces.	He/she is not able to differentiate the main characteristic about the different forces.
Experiments about sounds	He/she is able to think a real example about the experiments.	He/she is be able what happens in the experiment and understand why.	He/she is be able to understand what happens in the experiment, but is not be able to understand why.	He/she is not able to understand what happens in the experiments
Scrip	He/she is be able to describe the experiment using complete sentences and is be able to differentiate the process step by step.	He/she is be able to describe the experiment using complete sentences.	He she is be able to describe the experiment, but is not be able to build complete sentences.	He/she is not be able to describe the experiment.
Digital competence	They make a QR Code of their video.	They use correctly the app and upload the video to youtube.	They are able to find the app, but don't use correctly the app.	They are able to switch on the IPad, but they aren't able to find the app.
Work in groups	Good job and good coordination in the group and they help other groups.	Good job and good coordination in the group.	They have worked but with constants corrections.	They have not understood. They fight frequently.

Self-assessment	He/she evaluates justly and is be able to explain why. He/she gives examples about their new knowledges.	He/she evaluates justly and is be able to explain why.	He/she evaluates justly but he/she is not be able to explain why.	He/she fill the sheet without justified his/her answers. His/her self-assessment does not agree with the teacher assessment.
Final task	They explain the experiment without scrip and using non-verbal language.	They explain the experiment without scrip	They explain the experiment reading the scrip.	They don't explain well the experiment.

6. ANEXES

- **JUSTIFICATION ON LOMCE**

BLOQUE 1. INICIACIÓN A LA ACTIVIDAD CIENTÍFICA CONTENIDOS COMUNES PARA TODOS LOS CURSOS DE LA ETAPA		
CONTENIDOS	CRITERIOS DE EVALUACIÓN	ESTÁNDARES DE APRENDIZAJE EVALUABLES
- Iniciación a la actividad científica. Aproximación experimental a algunas cuestiones relacionadas con las Ciencias de la Naturaleza. - Utilización de diferentes fuentes de información. Observación directa e indirecta de la naturaleza empleando instrumentos apropiados y a través del uso de libros, medios audiovisuales y tecnológicos.	1. Obtener información relevante sobre hechos o fenómenos previamente delimitados, haciendo predicciones sobre sucesos naturales, integrando datos de observación a partir de las consultas de fuentes directas e indirectas, comunicando los resultados. 2. Establecer conjeturas tanto respecto de sucesos que ocurren de una forma natural como sobre los que ocurren cuando se provocan, a	1.1. Busca, selecciona y organiza información concreta y relevante, la analiza, obtiene conclusiones, comunica su experiencia, reflexiona acerca del proceso seguido y lo comunica oralmente y por escrito. 1.2. Utiliza medios propios de la observación.

- Lectura, análisis y síntesis de textos propios del área. - Utilización de las tecnologías de la información y comunicación para buscar y seleccionar información, simular procesos y presentar conclusiones. - Hábitos de prevención de enfermedades y accidentes, en el aula, en el centro y en la utilización de diversos materiales, teniendo en cuenta las normas de seguridad y conocimiento de los protocolos de actuación en caso de necesidad. - Hábitos de prevención y cuidado en el manejo de redes y materiales digitales y conocimiento del uso responsable y seguro de	través de un experimento o una experiencia o empleando programas informáticos sencillos de simulación científica. 3. Utilizar las tecnologías de la información y comunicación, conociendo y respetando las indicaciones de seguridad en la red. 4. Trabajar de forma cooperativa, apreciando el cuidado por la seguridad propia y de sus compañeros, cuidando las herramientas y haciendo uso adecuado de los materiales. 5. Utilizar diferentes técnicas de exposición oral y escrita de los resultados obtenidos tras la realización de diversas experiencias, presentándolos con apoyos gráficos. 6. Realizar proyectos y presentar informes.	1.3. Consulta y utiliza documentos escritos, imágenes y gráficos. 1.4. Desarrolla estrategias adecuadas para acceder a la información de los textos de carácter científico. 2.1. Manifiesta autonomía en la planificación y ejecución de acciones y tareas y tiene iniciativa en la toma de decisiones. 3.1. Conoce y utiliza las medidas de protección y seguridad personal que debe utilizar en el uso de las tecnologías de la información y la comunicación. 3.2. Hace un uso adecuado de las tecnologías de la información y la

las tecnologías e Internet. - Trabajo individual y en grupo. - Técnicas de estudio y trabajo. Desarrollo de hábitos de trabajo. Esfuerzo y responsabilidad. - Planificación de proyectos y presentación de informes.		comunicación como recurso de ocio. 3.3. Usa de forma autónoma el tratamiento de textos (ajuste de página, inserción de ilustraciones o notas, etc.). 4.1. Conoce y respeta las normas de uso y de seguridad de los instrumentos y de los materiales de trabajo. 4.2. Utiliza estrategias para realizar trabajos de forma individual y en equipo, mostrando habilidades para la resolución pacífica de conflictos. 5.1. Utiliza, de manera adecuada, el vocabulario correspondiente a cada uno de los bloques de contenidos. 5.2. Expone oralmente de forma clara y

		ordenada contenidos relacionados con el área manifestando la compresión de textos orales y/o escritos. 5.3. Presenta los trabajos de manera ordenada, clara y limpia, en soporte papel y digital. 6.1. Realiza experiencias sencillas y pequeñas investigaciones, planteando problemas, enunciando hipótesis, seleccionando el material necesario, realizando, extrayendo conclusiones, y comunicando los resultados.

BLOQUE 4. MATERIA Y ENERGÍA		
CONTENIDOS	CRITERIOS DE EVALUACIÓN	ESTÁNDARES DE APRENDIZAJE EVALUABLES
- La materia: propiedades. Estudio y clasificación de algunos materiales por sus propiedades elementales. - Cambios en el movimiento y en la forma de los cuerpos por efecto de las fuerzas y el magnetismo. - La percepción del sonido. - Planificación y realización de experiencias asociadas a la mezclas de materiales de uso común.	1. Estudiar y clasificar materiales por sus propiedades físicas observables relacionando algunas de ellas con sus usos. 2. Iniciarse en la actividad científica para estudiar los efectos de la aplicación de fuerzas y el magnetismo en situaciones cotidianas para comprobar cambios o transformaciones en objetos y materiales. 3. Iniciarse en la actividad científica realizando experimentos para estudiar la percepción del sonido, sus características y adecuar su producción.	1.1 Observa, identifica, describe y clasifica algunos materiales por sus propiedades. 1.2. Relaciona algunas de las propiedades de los materiales con sus usos. 2.1. Observa, identifica, analiza y explica los efectos de la aplicación de fuerzas en la misma dirección, fuerzas de contacto y a distancia y describe lo ocurrido. 3.1. Observa, identifica y describe las principales características del sonido y de la vibración.

	4. Realizar mezclas sencillas con componentes de uso cotidiano. 5. Valorar la importancia de hacer un uso responsable de las fuentes de energía y los materiales que emplea.	3.2. Explica las principales características del tono, intensidad y timbre. 3.3. Controla tono e intensidad de sus emisiones de sonido adecuándose a los contextos donde se encuentra. 4.1. Realiza experimentos sencillos para obtener diferentes tipos de mezclas. 4.2. Separar los componentes de una mezcla sencilla mediante métodos diversos. 5.2. Respeta las normas de uso, seguridad y de conservación de los instrumentos y de los materiales de trabajo en el aula y en el centro.

- **DIDACTIC PROPOSAL TABLES**

About the unit/ Where this unit fits

This unit will be developed in the 2nd term of 2rd course of Primary Education in a Spanish bilingüal school. The name of the unit is "We investigate the matter" and their contents will be divided in 4 big parts. Materials and their properties, state changes, forces and sounds transmission.

The contents of the first topic (Materials and their properties) are more concretes and easier to assimilate, for that we will introduce the theme making a big mind map on the carpet in a big group, where we will express the contents, using different types of materials and invest its, connecting this topic with their daily life. Once known the contents, we use our knowledge to do some experiments about the properties of the materials. This will be made by experiments so that the children could see and verify the contents of the unit.

The other topics will be developed contrary to the first topic, because the contents are more abstract and difficult to explain through the oral method. For this reason we will use the investigation method through experiments, in which we can see the contents to express them in the mind map later. The investigation method will be guided through rubrics and sheets which help pupils to make hypothesis and make conclusions.

It is planned for Science but it is linked with Literacy and Arts and crafts, so that we are doing an interdisciplinary work. The final task we have planned for Science will be a field notebook where they will have to collect up their process, their hypothesis and their conclusions about the experiments, but also they will have to collect up all little tasks and the learning pills (things that they have learnt) of each day.

It is linked with Arts and crafts through recycling, reusing and reducing materials. They will have to build a toy reusing materials that they needn't, recycling the materials which are left over and reducing materials using also those materials that are really necessary. After they will have to describe their toy using the structures and the vocabulary of science.
Literacy contents are linked just with science through the vocabulary. The topic of the unit is "My bedroom" and the final task will be a descriptive text about their bedrooms using There is/are, I like…, this/these that/those. And they will have to recorder a video in their bedrooms describing it.

The whole unit will take approximately 10 lessons, of 45, 55 or 60 minutes each lesson depending the day, some lessons will be double. There are 18 pupils in the class.

Work this unit offers opportunities for children to relate scientific knowledge and understanding to familiar phenomena (*why do we use some materials to build something and other materials to build other things? how to affect the state change in our life? Where can we find the influence of the forces in our daily life? How can we transmit the sounds?)* and to consider scientific evidence about the matter, the forces, the state changes and the sounds transmission

Through this unit children are going to consolidate their ideas about:

- Matter, materials and their properties.
- Matter states and their changes.
- Influence of the forces in our lives.
- Sound: origin and propagation

Prior Learning	Language used in the unit	Important Resources
Pupils will have some important preconceptions about this topic that will help the teacher to introduce the topic and to start since this ideas. Some of the previous knowledge that the pupils should have according to the law is :	***STRUCTURES:*** ***Materials:*** It is a/an … It is... It is made of … Its origin is… Its came from… I use it to…	poster paper felt-tipped pens objects to do the experiments worksheets tablets Science book

BLOQUE 4 ***MATERIA Y ENERGÍA*** - Matter and its observable properties. Simple classification of materials. - Intervention of energy in our daily life. - Planning and executing simple experiments. - Reducing, recycling and reusing materials. - Responsible use of sources energy on the planet. Pupils will know about this because of their own personal experiences such as travelling on UNIT PLANNING FOR SCIENCE – 3rd course Primary holidays, the clothes they wear in different months, the hour they go to bed or even the	***State changes:*** … dissolves in … … melts into… … evaporates into … … condensates into … … solidifies into … ***Forces:*** … attracts the… to the … ...push the … to the … … stop the ... ***Sounds:*** Sound waves travel through… … has a low/high pitch … is loud/quiet ***KEY WORDS:*** ***Materials:*** Matter, materials, origin, properties, natural materials, artificial materials, mineral, animal, plant, hard, soft, heavy, light, opaque, transparent, paper, glass, plastic, cotton, wool, wood, gold, oil, silk, metal.	

change of hour twice a year in which we change clocks to save daylight time.	***State changes:*** Change, dissolving, solid, liquid, gas, melting, evaporation solidification, condensation, heat, cool. ***Forces:*** Forces, contact forces, non-contact forces, stop, push, change of shape, gravity, magnets. ***Sounds:*** Sounds, vibrations, sound waves, perceive ears, air, solid objects, water, tone, pitch, low, high, intensity, loudness, loud, quiet.	

Expectations

At the end of this unit all the children must	-know what the origin about any material is. -know the main properties of the materials. -know the three states of the matter. -know what are the forces and how its affects us. -know how the sound is produced and how can travel the sound waves. -differentiate and identify the properties of the sounds

	-be able to see and understand what happens in the experiment.(investigation method). -be able to work as a group (cooperative techniques). -be able to use the tablet and find and differentiate the different programs (digital competence).
At the end of this unit most of the children should	-know where it come from the main materials. -be able to differentiate the main characteristic about any materials. -understand how we can change the matter to other states -be able to recognize and identify the different forces. -be able to implement and apply the contents of sounds into the experiments -be able to make hypothesis about the experiments.(investigation method) -understand that the group success is their own success. Every pupils are interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques). -be able to use the different programs and do the tasks with help (digital competence).
At the end of this unit some of the children could	-be able to describe the materials using complete sentences. -be able to find the contents about materials in their real life. -be able to find the contents about state changes in their real life. -be able to identify the origin of each force and why it is produced that force. -be able to find the contents about sounds in their real life. -be able to think a real example about the experiments.(investigation method). -be able to act without competitive behaviours, helping other groups (cooperative techniques). -be able to use the tablet with total autonomy (digital competence).

Lesson	Learning goals	Learning outcomes	Main activity	Assessment criteria
1	Observe, identify, differentiate and classify materials according to their observable physical properties, such as, texture, hardness or transparence. Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates	Observe, identify, differentiate and classify materials according to their origin: animal, plant or mineral. Is able to describe the characteristics and properties of an object made of a certain material: origin, color, shape, buoyancy. Select appropriate materials with which to make certain objects with certain characteristics.	Materials: Video, Mind map and descriptive text.	Observe, identify, differentiate and classify materials according to their observable physical properties. Uses appropriate vocabulary and structures from the unit. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Start scientific activity by carrying out an experiment to study the different materials. Elaborate the text using the structures and vocabulary used during the lesson.
2	Observe, identify, differentiate and classify materials according to their observable physical properties, such as, texture, hardness or transparence. Work cooperatively, , being	Observe, identify, differentiate and classify materials according to their origin: animal, plant or mineral.	Materials: Jigsaw and descriptive text	Observe, identify, differentiate and classify materials according to their observable physical properties. Uses appropriate vocabulary

	careful with tools and materials for the pupil's own safety and that of their classmates Apply the structures to build complete sentences.	Is able to describe the characteristics and properties of an object made of a certain material: origin, color, shape, buoyancy. Select appropriate materials with which to make certain objects with certain characteristics. Use the structures and vocabulary to make complete sentences.		and structures from the unit. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Elaborate the text using the structures and vocabulary used during the lesson.
3	Observe, identify, differentiate and classify materials according to their observable physical properties, such as, texture, hardness or transparence. Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Apply the structures to build complete sentences.	Observe, identify, differentiate and classify materials according to their origin: animal, plant or mineral. Is able to describe the characteristics and properties of an object made of a certain material: origin, color, shape, buoyancy. Select appropriate materials	Materials: Experiments (observation, hypothesis, look for real examples) Self assessment	Observe, identify, differentiate and classify materials according to their observable physical properties. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials.

		with which to make certain objects with certain characteristics. Use the structures and vocabulary to make complete sentences.		
4	Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe, identify, analyse and describe the differences between the basic properties of materials, relating some of them to their uses and recognising the visible effects of forces on objects, their components and their direction.	Describe changes in materials in everyday life such as an ice cream melting because of heat or the formation of icicles because of cold. Recognise that water can be found in three states: liquid, solid and gas. Know that liquid water needs heat to become gas and water in a solid state needs heat to become liquid.	Changes state: Experiments (observation, hypothesis, look for real examples) Think, Pair and Share	Describe some visible causes and effects in everyday life of changes in objects and materials. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Describe some visible causes and effects in everyday life of changes in objects and materials. Start scientific activity by carrying out an experiment to study the effects of state changes.

4	Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe, identify, analyse and describe the differences between the basic properties of materials, relating some of them to their uses and recognising the visible effects of their change state.	Describe changes in materials in everyday life such as an ice cream melting because of heat or the formation of icicles because of cold. Recognise that water can be found in three states: liquid, solid and gas. Know that liquid water needs heat to become gas and water in a solid state needs heat to become liquid.	Changes state: Video, Mind map and Activities Self-assessment	Describe some visible causes and effects in everyday life of changes in objects and materials. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials.
5	Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe and grasp intuitively the concept of force related to movement. Observe, identify and explain the effects of the application of force in the same direction, contact and non-contact forces and describe what happens.	Observe everyday situations where a force is applied and identify which way objects move when the force is applied. Recognise the force of gravity on Earth and what it does. Understand magnets and the type of force they apply to	Forces: Experiments (observation, hypothesis, look for real examples) Pencils in Mind map and video	Start scientific activity by carrying out an experiment to study the effects of forces. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Start scientific activity by carrying out an experiment to study the effects of forces.

		objects made of iron. Discover what a compass is and how it works. Recognise some materials, such as plasticine, which deform when force is applied.		
6	Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe and grasp intuitively the concept of force related to movement. Observe, identify and explain the effects of the application of force in the same direction, contact and non-contact forces and describe what happens. Apply the structures to build complete sentences.	Observe everyday situations where a force is applied and identify which way objects move when the force is applied. Recognise the force of gravity on Earth and what it does. Understand magnets and the type of force they apply to objects made of iron. Discover what a compass is	Forces: Jigsaw, describing text, activities	Start scientific activity by carrying out an experiment to study the effects of forces. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Communicate and present results both orally and in writing with the help of images. Elaborate the text using the structures and vocabulary

		and how it works. Recognise some materials, such as plasticine, which deform when force is applied. Use the structures and vocabulary to make complete sentences.		used during the lesson.
7	Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe, identify and describe the main characteristics of sound and vibration. Explain the main characteristics of tone, intensity and timbre. Observe, identify and explain the main characteristics of sound transmission through different media, giving examples.	Recognise different sounds for their properties: identify the timbre and describe the tone and intensity. Know how sound travels. Compare the sound of a boat horn with a whistle identifying that they have different timbres, tones and intensities. Identify noise pollution in an image that reflects an everyday scene and suggest ideas to prevent it.	Sounds: Experiments (observation, hypothesis, look for real examples)	Start scientific investigation by carrying out an experiment to study the perception of sound. Noise and noise pollution. Work cooperatively being careful with tools and materials for the pupil's own safety and that of their classmates looking after the tools and making appropriate use of the materials. Start scientific activity by carrying out an experiment to study the effects of sounds.

8	Apply the structures to build complete sentences.	Use the structures and vocabulary to make complete sentences.	Final task: Elaborate the scrip	Elaborate the scrip using the structures and vocabulary used during the unit.
9	Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Know the ICT and their resouces to apply in class	Use the tablets by self to record and up load the video	Final task: Record the video	Work cooperatively, being careful with tools and materials for the pupil's own safety and that of their classmates looking after the tools and making appropriate use of the materials. Record the video and up load to you tube.
10	Remind, summarize and organized every contents of the unit.	Use their knowledge to make their own mind map.	Remember the unit: Fill the gaps of the mind map	Make a mind map summarizing the content that they learnt.

Lesson 1(Monday 55 minutes)		
Learning objectives	Learning outcomes	Evidence for Assessment
Observe, identify, differentiate and classify materials according to their observable physical properties, such as, texture, hardness or transparence. Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates	Observe, identify, differentiate and classify materials according to their origin: animal, plant or mineral. Is able to describe the characteristics and properties of an object made of a certain material: origin, color, shape, buoyancy. Select appropriate materials with which to make certain objects with certain characteristics.	Observe, identify, differentiate and classify materials according to their observable physical properties. Uses appropriate vocabulary and structures from the unit. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Start scientific activity by carrying out an experiment to study the different materials. Elaborate the text using the structures and vocabulary used during the lesson.
Discourse/Text targeted	Language targeted- Non-verbal L Targeted	
Descriptive text: To describe different materials. What is this? What's something made of? It´s ….	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators:	

It´s made of.... What is his origin? Why? His origin is natural, because it comes from natural things like (minerals/animals/plants). His origin is artificial, because it comes from natural things but humans transform them. It is hard or soft? It is heavy or light? It is opaque or transparent?	Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities

Draw and describe an object.

Classroom	Timin	Groupin	Pupils	Teacher	Resources

Management	g	g			
	2	Big group	Say hello	Say hello	
	10	Big group	Brain storm on the carpet to introduce the new topic "The Matter" through questions about their own experiences. Observe and touch different materials	Show different materials to the pupils and ask them about the topic.	-Wood stick -Wool -Jumper -Book -Paper -Cotton -Glass -Minerals
	10	Big group	Answer the teacher questions to make the mind map	Make the mind map	-Poster paper -Felt-tipped
	5	Big group	Identify the mind map contents in a short video https://www.youtube.com/watch?v=xOKr462HLc0	Play and stop the video when the contents appear.	-Digital blackboard -Video
	10	Big group	Describe on the carpet different objects with the mind map using the structures and new vocabulary.	Choose the children to describe the object.	-Wood stick -Wool -Jumper

					-Book -Paper -Cotton -Glass -Minerals
	10	Little groups	Draw and describe an object in their notebook using the structures and new vocabulary.	Explain the activity	Paper and pencil
	5	Little groups	Exercise 2 and 3 page 75 of science book	Explain the activities	Science book
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	

Assessment Criteria

All children must be able to	**Most of the children will be able to**	**Some of the children could**
-know what the origin about any material is. -know the main properties of the materials. -be able to work as a group (cooperative techniques).	-know where it comes from the main materials. - differentiate the main characteristic about any materials. -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-describe the materials using complete sentences. -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 2 (Tuesday 45 minutes)		
Learning objectives	Learning outcomes	Evidence for Assessment
Observe, identify, differentiate and classify materials according to their observable physical properties, such as, texture, hardness or transparence. Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates	Observe, identify, differentiate and classify materials according to their origin: animal, plant or mineral. Is able to describe the characteristics and properties of an object made of a certain material: origin, color, shape, buoyancy. Select appropriate materials with which to make certain objects with certain characteristics.	Observe, identify, differentiate and classify materials according to their observable physical properties. Uses appropriate vocabulary and structures from the unit. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials.

Apply the structures to build complete sentences.	Use the structures and vocabulary to make complete sentences.	Elaborate the text using the structures and vocabulary used during the lesson.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
Descriptive text: To describe different materials. It´s …. It´s made of.... His origin is… It comes from… It is hard or soft It is heavy or light It is opaque or transparent	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval.

	Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities					
Jigsaw about materials and describe one of them.					
Classroom Management	Timing	Grouping	Pupils	Teacher	Resources
	2	Big group	Say hello	Say hello	
	5	Big group	Listen to the teacher	Explain the activity (Jigsaw)	Digital blackboard and powerpoint.
	5	Big group	Organize the class	Organize the class to make the jigsaw	-Worksheets -Plastic glass -Metal bowl -Wool jumper

					-Disc-make up removers
	10	Little groups	Each expert study their object	Help pupils when they need	-Worksheets -Plastic glass -Metal bowl -Wool jumper -Disc-make up removers
	10	Little groups	Share the information and do the worksheet	Help pupils when they need	Worksheet and pencil
	10	Individually	Choose an object and describe it behind the paper.	Help pupils when they need	Worksheet and pencil
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	
Assessment Criteria					

All children must be able to	Most of the children will be able to	Some of the children could
-know what the origin about any material is. -know the main properties of the materials. -be able to work as a group (cooperative techniques).	-know where it comes from the main materials. - differentiate the main characteristic about any materials. -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-describe the materials using complete sentences. -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 3 (Thursday 1hour 30 minutes)		
Learning objectives	Learning outcomes	Evidence for Assessment

Observe, identify, differentiate and classify materials according to their observable physical properties, such as, texture, hardness or transparence. Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Apply the structures to build complete sentences.	Observe, identify, differentiate and classify materials according to their origin: animal, plant or mineral. Is able to describe the characteristics and properties of an object made of a certain material: origin, color, shape, buoyancy. Select appropriate materials with which to make certain objects with certain characteristics. Use the structures and vocabulary to make complete sentences.	Observe, identify, differentiate and classify materials according to their observable physical properties. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
Descriptive text: Describe a real example about the experiments.	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions.

	Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities

Experiments about material properties and describe a real example about the experiments

Classroom Management	Timing	Grouping	Pupils	Teacher	Resources
	2	Big group	Say hello	Say hello	
	15	Individually	Mindfulness	Play music and say relaxing	Laptop, paper and crayons.

				sentences.	
	5	Big group	Organize the class	Organize the class to do the experiments	Cube, water, weight ball (Red), light ball (Blue) Rock, cotton ball, wooden table. Laser, glass and wooden table
	15	Little groups	Make an experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Cube, water, weight ball (Red), light ball (Blue)
	15	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Rock, cotton ball, wooden table.
	15	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Laser, glass and wooden table Worksheets
	10	Big group	Share the answers and real examples	Listen and check them	
	10	Individually	Do the self-assessment	Explain how to do the self-assessment	Self-assessment rubric

	3	Big group	Organize the class and say good bye	Organize the class and say good bye	

Assessment Criteria		
All children must be able to	**Most of the children will be able to**	**Some of the children could**
-know the main properties of the materials. -be able to see and understand what happens in the experiment. (Investigation method). -be able to work as a group (cooperative techniques).	- differentiate the main characteristic about any materials. -be able to make hypothesis about the experiments.(investigation method) -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-be able to find the contents about materials in their real life. -be able to think a real example about the experiments. (Investigation method). -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 4 (Friday 2 hours)	

Learning objectives	Learning outcomes	Evidence for Assessment
Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe, identify, analyse and describe the differences between the basic properties of materials, relating some of them to their uses and recognising the visible effects of their change states.	Describe changes in materials in everyday life such as an ice cream melting because of heat or the formation of icicles because of cold. Recognise that water can be found in three states: liquid, solid and gas. Know that liquid water needs heat to become gas and water in a solid state needs heat to become liquid.	Describe some visible causes and effects in everyday life of changes in objects and materials. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Describe some visible causes and effects in everyday life of changes in objects and materials. Start scientific activity by carrying out an experiment to study the effects of state changes.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
Descriptive text: Describe a real example about the experiments.	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays:

	Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities

Experiments about change states and describe a real example about the experiments

Classroom Management	Timing	Grouping	Pupils	Teacher	Resources
	2	Big group	Say hello	Say hello	

	10	Big group	Listen to the teacher and organize the class	Explain the experiments and organize the class to do the experiments	2 glasses, water, salt, sugar, teaspoon, empty water jug, towel. Heating water, cooking pot, water, mirror. 2 plates, ice, ice-box, salt.
	15	Little groups	Make an experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	2 glasses, water, salt, sugar, teaspoon, empty water jug, towel. Worksheets
	15	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Heating water, cooking pot, water, and mirror. Worksheets
	15	Little groups	Rotating and make other experiment and	Help pupils when they need	2 plates, ice, ice-box, salt. Worksheets

			answer the worksheet questions. Describe a real example about the experiment.		
	10	Big group	Share the answers of the worksheets	Listen and check them	
	10	Little groups	Think Pair Share Think a real example about the changes state. Describe it	Check it	Paper and pencil
	10	Big groups	Identify the video contents in a short video	Play and stop the video when the contents appear.	Video: https://www.youtube.com/watch?v=_pxd56nzPl0
	10		Answer the teacher questions to make the mind map	Make the mind map	Mind map and felt-tippeds

	10	Little groups	Do books activities	Explain the activities	Class Book
	10	Individually	Do the self-assessment	Remenber how to do the self-assessment	Self-assessment rubric
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	

Assessment Criteria

All children must be able to	**Most of the children will be able to**	**Some of the children could**
-know the three states of the matter. -be able to see and understand what happens in the experiment. (Investigation method). -be able to work as a group (cooperative techniques).	-understand how we can change the matter to other states -be able to make hypothesis about the experiments.(investigation method) -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-be able to find the contents about state changes in their real life. -be able to think a real example about the experiments. (Investigation method). -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 5 (Monday 1 hours 50 minutes)		
Learning objectives	Learning outcomes	Evidence for Assessment
Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe and grasp intuitively the concept of force related to movement. Observe, identify and explain the effects of the application of force in the same direction, contact and non-contact forces and describe what happens. Observe, identify, analyse and describe the differences between the basic properties of materials, relating some of them to their uses and recognising the visible effects of forces on objects, their components and their direction.	Observe everyday situations where a force is applied and identify which way objects move when the force is applied. Recognise the force of gravity on Earth and what it does. Understand magnets and the type of force they apply to objects made of iron. Discover what a compass is and how it works. Recognise some materials, such as plasticine, which deform when force is applied.	Start scientific activity by carrying out an experiment to study the effects of forces. Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Start scientific activity by carrying out an experiment to study the effects of forces.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
Descriptive text: Describe a real example about the experiments.	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.
Outline of leading activities	

Experiments about forces and describe a real example about the experiments					
Classroom Management	Timing	Grouping	Pupils	Teacher	Resources
	2	Big group	Say hello	Say hello	
	10	Big group	Listen to the teacher and organize the class	Explain the experiments and organize the class to do the experiments	Ball, plasticine, little earth with magnets, metal sticks, metal ball, magnets, hair dryer and balloom.
	10	Little groups	Make an experiment and answer the worksheet questions. Describe a real example about the	Help pupils when they need	Ball and Worksheets

			experiment.		
	10	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Plasticine and Worksheets
	10	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Metal ball and magnets. Worksheets

	10	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Little earth with magnets, metal sticks and worksheet
	10	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Hair dryer, balloon.
	15	Big group	Share the answers of	Listen and check them	

			the worksheets		
	10	Big group	Answer the teacher questions to make the mind map	Make the mind map	Mind map
	10	Little groups	Do book activities.	Explain activities.	Class book
	10	Individually	Self-assessment	Remind how to do the self-assessment	Self-assessment rubric
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	
Assessment Criteria					

All children must be able to	Most of the children will be able to	Some of the children could
-know what the forces are and how it affects us. -be able to see and understand what happens in the experiment. (Investigation method). -be able to work as a group (cooperative techniques).	-be able to recognize and identify the different forces. -be able to make hypothesis about the experiments.(investigation method) -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-be able to identify the origin of each force and why it is produced that force. -be able to think a real example about the experiments. (Investigation method). -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 6 (Tuesday 45 minutes)		
Learning objectives	Learning outcomes	Evidence for Assessment

Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe and grasp intuitively the concept of force related to movement. Observe, identify and explain the effects of the application of force in the same direction, contact and non-contact forces and describe what happens. Apply the structures to build complete sentences.	Observe everyday situations where a force is applied and identify which way objects move when the force is applied. Recognise the force of gravity on Earth and what it does. Understand magnets and the type of force they apply to objects made of iron. Discover what a compass is and how it works. Recognise some materials, such as plasticine, which deform when force is applied. Use the structures and vocabulary to make complete sentences.	Work cooperatively being conscious of their own safety and that of their classmates, looking after the tools and making appropriate use of the materials. Communicate and present results both orally and in writing with the help of images. Elaborate the text using the structures and vocabulary used during the lesson.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
Descriptive text: To describe different forces. It´s…	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators:

It is contact/non-contact force It is produced by… It can…	Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities					
Jigsaw about forces and describe one of them.					
Classroom	Timing	Grouping	Pupils	Teacher	Resources

Management	2	Big group	Say hello	Say hello	
	5	Big group	Listen to the teacher	Explain the activity (Jigsaw)	Digital blackboard and powerpoint.
	5	Big group	Organize the class	Organize the class to make the jigsaw	Ball, magnets, balloon, plasticine and worksheets
	10	Little groups	Each expert study their object	Help pupils when they need	Ball, magnets, balloon, plasticine and worksheets
	10	Little groups	Share the information and do the worksheet	Help pupils when they need	Worksheet and pencil
	10	Individually	Choose a kind of force and	Help pupils when they need	Worksheet and pencil

			describe it behind the paper.		
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	

Assessment Criteria

All children must be able to	**Most of the children will be able to**	**Some of the children could**
-know what the forces are and how it affects us. -be able to work as a group (cooperative techniques).	-be able to recognize and identify the different forces. -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-be able to identify the origin of each force and why it is produced that force. -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 7 (Thursday 1hour 30 minutes)		
Learning objectives	Learning outcomes	Evidence for Assessment
Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Observe, identify and describe the main characteristics of sound and vibration. Explain the main characteristics of tone, intensity and timbre. Observe, identify and explain the main characteristics of sound transmission through different media, giving examples.	Recognise different sounds for their properties: identify the timbre and describe the tone and intensity. Know how sound travels. Compare the sound of a boat horn with a whistle identifying that they have different timbres, tones and intensities. Identify noise pollution in an image that reflects an everyday scene and suggest ideas to prevent it.	Start scientific investigation by carrying out an experiment to study the perception of sound. Noise and noise pollution. Work cooperatively being careful with tools and materials for the pupil's own safety and that of their classmates looking after the tools and making appropriate use of the materials. Start scientific activity by carrying out an experiment to study the effects of sounds.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
Descriptive text: Describe a real example about the experiments.	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.
Outline of leading activities	
Experiments about sounds and describe a real example about the experiments	

Classroom Management	Timing	Grouping	Pupils	Teacher	Resources
	2	Big group	Say hello	Say hello	
	10	Individually	Mindfulness	Play music and say relaxing sentences.	Laptop, paper and crayons.
	15	Big group	Start with a thinking routine about the sounds. Organize the class and explain the experiments	Explain the thinking routine. Organize the class to do the experiments	Thinking routine worksheet Hollow tube, mini-guitar, transparent plastic paper, paper, pencil, water balloon, water container, hygienic paper, flute and worksheet.
	10	Little groups	Make an experiment and answer the	Help pupils when they need	Hollow tube, mini-guitar, transparent plastic paper, worksheets

			worksheet questions. Describe a real example about the experiment.		
	10	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	paper, pencil, worksheets
	10	Little groups	Rotating and make other experiment and answer the worksheet questions.	Help pupils when they need	water balloon, water container, hygienic paper, worksheets

			Describe a real example about the experiment.		
	10	Little groups	Rotating and make other experiment and answer the worksheet questions. Describe a real example about the experiment.	Help pupils when they need	Flute and worksheet
	10	Big group	Share the answers and real examples	Listen and check them	
	5	Individually	Finish the thinking routine	Help them	Thinking routine rubric
	5	Big group	Do the mind	Do the	Mind map felt-tipped

			map	mind map	
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	

Assessment Criteria

All children must be able to	**Most of the children will be able to**	**Some of the children could**
-know how the sound is produced and how can travel the sound waves. -be able to see and understand what happens in the experiment. (Investigation method). -be able to work as a group (cooperative techniques).	-be able to implement and apply the contents of sounds into the experiments -be able to make hypothesis about the experiments.(investigation method) -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-be able to find the contents about sounds in their real life. -be able to think a real example about the experiments. (Investigation method). -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 8(Friday 1 Hour)		
Learning objectives	Learning outcomes	Evidence for Assessment
Apply the structures to build complete sentences.	Use the structures and vocabulary to make complete sentences.	Elaborate the scrip using the structures and vocabulary used during the unit.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
Descriptive text and instructional text: To describe step by step an experiment. The topic that we have chosen is The experiment that we have chosen is about The materials that we need are Step 1: First… Step 2: After… Step 3: Finally…	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities					
Scrip of final task video					
Classroom Management	Timing	Grouping	Pupils	Teacher	Resources
	2	Big group	Say hello	Say hello	
	10	Big group	Listen to the teacher	Explain how to do the worksheet.	Worksheet
	15	Little group	Start to do the scrip	Help them	Worksheet
	5	Little group	Show the scrip to the teacher	Check the scrip	

	10	Little group	Check the mistakes of the scrip	Help them.	
	5	Little groups	Organize how to record the video	Help them	
	10	Little groups	Rehearsal to record the video	Help them	Materials to the experiment that they had chosen.
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	

Assessment Criteria

All children must be able to	**Most of the children will be able to**	**Some of the children could**
-describe the experiment, but is not be able to build complete sentences. -be able to work as a group (cooperative techniques).	-describe the experiment using complete sentences. -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-describe the experiment using complete sentences and is be able to differentiate the process step by step. -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 9(Monday 55 minutes)		
Learning objectives	Learning outcomes	Evidence for Assessment
Work cooperatively, , being careful with tools and materials for the pupil's own safety and that of their classmates Know the ICT and their resouces to apply in class	Use the tablets by self to record and up load the video	Work cooperatively, being careful with tools and materials for the pupil's own safety and that of their classmates looking after the tools and making appropriate use of the materials. Record the video and up load to you tube.
Discourse/Text targeted	Language targeted- Non-verbal L Targeted	
Descriptive text and instructional text: To describe step by step an experiment. The topic that we have chosen is The experiment that we have chosen is about The materials that we need are Step 1: First… Step 2: After… Step 3: Finally…	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions.	

	Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval. Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities					
Record the final task video, up load to YouTube, Do the Qr Code and paste in the mind map.					
Classroom Management	Timing	Grouping	Pupils	Teacher	Resources

	2	Big group	Say hello	Say hello	
	10	Big group	Listen to the teacher	Explain how to use the tablet.	Tablet
	10	Little group	Start to record the video	Help them	Tablet and materials to do their experiments.
	5	Little group	Show the video to the teacher	Check the video	Tablet
	10	Little group	Up load the video to YouTube	Help them.	Tablet and internet
	15	Little groups Little groups	Do the Qr Code, print it and paste it in the mindmap.	Help them	Tablet, internet, print, scissors and paste.

	3	Big group	Organize the class and say good bye	Organize the class and say good bye	

Assessment Criteria		
All children must be able to	**Most of the children will be able to**	**Some of the children could**
-find the different apps, but don't use correctly the apps. -be able to work as a group (cooperative techniques).	-use correctly the app and upload the video to YouTube. -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-make a QR Code of their video. -be able to act without competitive behaviours, helping other groups (cooperative techniques).

Lesson 10(Monday 55 minutes)	

Learning objectives	Learning outcomes	Evidence for Assessment

Remind, summarize and organized every contents of the unit.	Use their knowledge to make their own mind map.	Make a mind map summarizing the content that they learnt.

Discourse/Text targeted	Language targeted- Non-verbal L Targeted
	Apart from Verbal language, teacher will use some features of Non-verbal language such as: Illustrators: Teacher points at the materials and resources needed in this lesson while he/she is explaining the activity. Affect displays: Pupils keep eye contact with the teacher, showing understanding. Facial expressions that show personal emotions. Emblems: Move the hands to say hello / goodbye. Point the thumb upwards to show approval.

	Regulators: Teacher counts up to three with fingers to get silence and the pupils' attention. Paralanguage: Use a proper pitch and volume of the voice.

Outline of leading activities					
Remind the unit, do a little mind map, finish the science book activities.					
Classroom Management	Timing	Grouping	Pupils	Teacher	Resources
	2	Big group	Say hello	Say hello	

	10	Big group	Answer to the teacher questions.	Ask to the pupils on the carpet with the mind map little questions to remind.	Mind map
	10	Little group	Start to fill the gaps of a little mind map using cooperative techniques (Rotating sheet)	Help them	Worksheet
	5	Big group	Check the mind map	Check the mind map	worksheet
	15	Little group	Pencils in to do the books activities	Control the time	Clock, science book
	10	Big group	Check the activities	Check the activities	Science book
	3	Big group	Organize the class and say good bye	Organize the class and say good bye	
Assessment Criteria					

All children must be able to	**Most of the children will be able to**	**Some of the children could**
-remind some vocabulary and main ideas of the unit -be able to work as a group (cooperative techniques).	-remind every vocabulary and some complex ideas of the unit. -understand that the group success is our own success. Every pupil is interested in every members of their group. They are able to transform the individually behaviours to collective behaviours (cooperative techniques).	-Remind every concepts of the unit. -be able to act without competitive behaviours, helping other groups (cooperative techniques).

- **WORKSHEETS**

MIND MAP

LESSON 2 JIGSAW WORKSHEET

PLASTIC GLASS	***METAL BOWL***
It is made of_____.	It is made of_____.
Its origin is:	Its origin is:
□ NATURAL □ARTIFICIAL	□ NATURAL □ARTIFICIAL
It comes from the:	It comes from the:
□ MINERALS □ PLANTS □ ANIMALS	□ MINERALS □ PLANTS □ ANIMALS
PROPERTIES:	**PROPERTIES:**
□Hard □Opaque □Elastic □Smooth	□Hard □Opaque □Elastic □Smooth
□Soft □Transparent □Flexible □Rough	□Soft □Transparent □Flexible □Rough
I use it to_____.	I use it to_____.

WOOL JUMPER	***DISCS MAKEUP REMOVERS***
It is made of_____.	It is made of_____.
Its origin is:	Its origin is:
□ NATURAL □ARTIFICIAL	□ NATURAL □ARTIFICIAL
It comes from the:	It comes from the:
□ MINERALS □ PLANTS □ ANIMALS	□ MINERALS □ PLANTS □ ANIMALS
PROPERTIES:	**PROPERTIES:**
□Hard □Opaque □Elastic □Smooth	□Hard □Opaque □Elastic □Smooth
□Soft □Transparent □Flexible □Rough	□Soft □Transparent □Flexible □Rough
I use it to_____.	I use it to_____.

LESSON 3 EXPERIMENTS WORRKSHEET

EXPERIMENT 1

Children will introduce the balls into the water container. Answer the questions.

What happens?

a) The blue ball fleets and the white ball goes down.

b)Both balls fleets

c)The blue ball goes down and the white ball fleets

Why?

a)Blue ball is bigger than the white ball.

b)White ball is heavier than blue ball

c)Blue ball is heavier than white ball

EXPERIMENT 2

Children will rub the table with the rock and with the plasticine ball. Answer the questions.

What happens?

a) Rock claws the table and the table claws the plasticine ball.

b) Plasticine ball claws the table and the table claws the rock.

c) Plasticine ball claws the table and the rock

Order the materials from hardest to softest. Plasticine ball, Rock, Wooden table.

EXPERIMENT 3

Children will try to pass the light through the glass and through the table. Answer the questions.

What happens?

a) Light pass through the table and through the glass.

b) Light pass through the glass but does not pass through the table.

c) Light pass through the table but does not pass through the glass.

Why?

a) The glass is opaque and does not allow pass the light.

b) The table is transparent and allows pass the light.

c) The glass is transparent and allows pass the light but the table is opaque and does not allows it.

LESSON 4 EXPERIMENTS SHEET

EXPERIMENT 1

Children will fill the glasses of water and will taste it.

Children will introduce sugar in one glass and salt in the other glass without stir.

Children will stir the glasses and taste it.

What happens?

a) The salt and the sugar have disappeared and the water tastes are the same.

b) The salt and the sugar have disappeared but the water tastes have changed.

c) The salt and the water continue on the bottom of the glass.

Why?

a) Because salt and sugar have left of the glass.

b) Because salt and sugar have mixed with the water without change their characteristic.

c) Because water have dissolved the salt and sugar with the water mixing their characteristic

EXPERIMENT 2

Children will heat the water and put the mirror on the vapour.

What happens?

a) The water continue in the container without change.

b) The water is changing little by little to vapour and the water doesn´t return.

c) The water is changing little by little to vapour and change back to liquid state with the cold mirror.

Why?

a) Because the heat breaks the links of the water and the cold of the mirror connects the links again.

b) Because the heat breaks the links of the water but the vapour can not change again to liquid state.

c) Because the heat does not affect to the water

EXPERIMENT 3

Children will put an ice stone in each plate, but in one they will have to add salt.

What happens?

a) Both ice stones don´t change.

b) Both ice stones change to liquid state.

c) Both ice stones change to liquid state but one faster than the other.

Why?

a) An ice stone melts faster because is warmer than the other.

b) The salt helps to break the links, and the ice stone melts faster.

c) Because the salt protects the ice and help it to keep in solid state.

QUESTIONS

We will pour water and salt in a glass and we will dissolve it. After, we will heat the glass. What will happen?

a) The water will continue in the glass and the salt will keep dissolved.

B The water will disappear and the salt will appear on the bottom of the glass.

c) The water and the salt will disappear.

Write a real example about the experiments.

LESSON 5 EXPERIMENTS WORKSHEET

EXPERIMENT 1

Children will play to pass and stop the ball.

What happens when I throw the ball?

a) I push the ball towards my partner but the ball doesn't move

b) I push the ball towards my partner but the ball goes up.

c) I push the ball towards my partner and the ball goes towards my partner.

Why the ball goes towards my partner?

a) I can´t produce force to move the ball.

b) Because the force that I make on the ball causes it to move

c) Because the force that I make on the ball causes it to move and is directed towards my partner.

What happens when the ball arrives to my partner?

a) The ball stops by itself.

b) The ball is stopped by my partner.

c) The ball keeps moving without stopping

Why the ball stops?

a) Because his weight cause that the ball stops.

b) Because the ball doesn´t want to move.

c) Because my partner produces the enough force to stop the ball.

EXPERIMENT 2

Children will play with the plasticine making shapes.

What happens?

a) The plasticine changes of shape by itself.

b) I can't change the shape of the plasticine.

c) I make that the plasticine changes his shape.

Why?

a) Because the plasticine has its own life.

b) Because the force produced by my hands makes that the plasticine changes his shape.

c) Because the air changes the shape of the plasticine.

EXPERIMENT 3

Children will move a metal ball with magnets.

What happens?

a) The ball doesn't move.

b) The ball moves by the table.

c) The ball goes up by the air.

Why?

a) Because the magnets attracts the ball and it makes that the ball moves.

b) Because the air moves the balls.

c) Because I push the ball to move it.

EXPERIMENT 4

Children will have a little earth with a magnet into it. Children's trough small metals on the little earth simulating the gravity earth.

What happens?

a) Little metals fall down the floor.

b) Little metals floats around the earth.

c) Little metals are attracted by the little earth.

Why?

a) Because the magnets of the little earth attracts little metals like the gravity on the earth.

b) Because the little earth has glue.

EXPERIMENT 5

Children will play with a hair dryer and a balloon.

What happens?

a) The balloon doesn't go up.

b) The balloon goes up but doesn´t fall down again.

c) The balloon goes up and falls down again.

Why?

a) Because the hair dryer makes that the balloon flies.

b) Because the hair dryer push up the balloon, after the gravity makes that the balloon fall down again.

c) Because on the earth there isn´t gravity and everything float.

Write a real example about the experiments.

LESSON 6 JIGSAW ABOUT FORCES

PUSH AND STOP □ CONTACT □ NON-CONTACT It is produced by: □Living things □ Magnetism □Gravity It can: □Move and brake objects □ Attracts objects to the ground □ Attract metal objects without touching them.	***CHANGES OF SHAPE*** □ CONTACT □ NON-CONTACT It is produced by: □Living things □ Magnetism □Gravity It can: □Move and brake objects □ Attracts objects to the ground □ Attract metal objects without touching them.
MAGNETS □ CONTACT □ NON-CONTACT It is produced by: □Living things □ Magnetism □Gravity It can: □Move and brake objects □ Attracts objects to the ground □ Attract metal objects without touching them.	***GRAVITY*** □ CONTACT □ NON-CONTACT It is produced by: □Living things □ Magnetism □Gravity It can: □Move and brake objects □ Attracts objects to the ground □ Attract metal objects without touching them.

LESSON 7 THINKING ROUTINE ABOUT SOUNDS

WHAT DO I KNOW?	***WHAT DO I WANT KNOW?***	***WHAT HAVE I LEARNT?***
WHAT ARE THE SOUNDS? ***HOW CAN THE SOUNDS TRAVEL?*** ***WHAT ARE THE PROPERTIES OF THE SOUNDS?***		

LESSON 8 FINAL TASK GUIDE

STEP 1: Choose the topic (Materials, state changes, forces or sounds).

STEP 2: Choose an experiment of this topic.

STEP 3: Think the materials that you need.

STEP 4: Write a script step by step explaining the experiment.

STEP 5: Record a video in which you are doing the experiment explaining the experiment.

SCRIPT

The topic that we have chosen is_____.

The experiment that we have chosen is about_____.

The materials that we need are_____.

Step 1: First_____.

Step 2: After_____.

Step 3: Finally_____.

What happen?_____.

Why?_____.

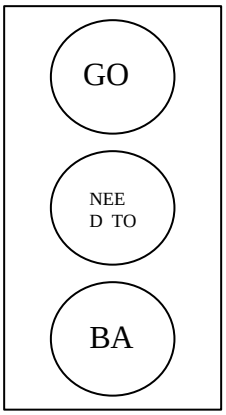
All group: Thank you for your attention! Bye bye!

SELF-ASSESSMENT WORKSHEET

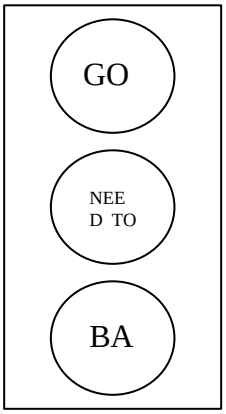
SELF ASSESSMENT

Name: _____

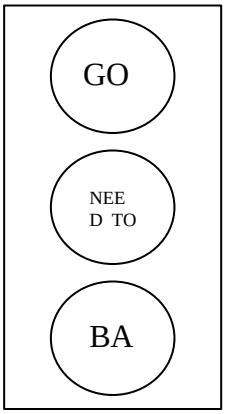
How did I work?



How was my progress?



How was my behaviour?



Two things I have learnt:

-

-

How do I feel?

FINAL TASK

FINAL TASK GROUP 1

https://www.youtube.com/watch?v=BladCspifuI&list=PLUKQCQ2QrONvftbAArbt53pUjkfGF-NUE&index=1

FINAL TASK GROUP 2

https://www.youtube.com/watch?v=egBzzuhSpPI&list=PLUKQCQ2QrONvftbAArbt53pUjkfGF-NUE&index=2

FINAL TASK GROUP 3

https://www.youtube.com/watch?v=idDuf-NoJFs&list=PLUKQCQ2QrONvftbAArbt53pUjkfGF-NUE&index=3

FINAL TASK GROUP 4

https://www.youtube.com/watch?v=yerPcvTvYXU&list=PLUKQCQ2QrONvftbAArbt53pUjkfGF-NUE&index=4

FINAL TASK 5

https://www.youtube.com/watch?v=vwU20XBllUQ&list=PLUKQCQ2QrONvftbAArbt53pUjkfGF-NUE&index=5

7. CONCLUSIONS

When it comes to planning for this type of methodologies, we must take into account that it is the students who must do all the work, we only propose challenges and we give the guidelines to carry them out. We can also guide and help them through the process, but they must do themselves.

For this reason, a good evaluation method is the rubric, which gives us the necessary information to evaluate, but at the same time it is a support for them and a good guide to know what they have to achieve and how it should be task at the end, so they learn to evaluate and be self-critical.

Planning all these tasks is more difficult and involves more work than following the book and doing its activities, but we are teachers and we are qualified to be able to design and carry out all this type of tasks. We must show that our profession can not be carried out by anyone.

In addition, all these experiences are not stored in the students as simple knowledge and learning, are stored as experiences with the emotions experienced.

For this reason, my way of working will be this, always open to change positively. Making the learning an experience, with its own history, that stays marked in the students, discovering, of this way, the world and its possibilities with them.

8. BIBLIOGRAFY

-Ball, Phill, "What is CLIL?", One Stop English, 2005, 2 pages.

-Bewich, V., Garín, M., Hidalgo, J.M. (2015) *Natural Science 2 primary, SM, EU.*

-Bloom, B., et al. *Taxonomía de los objetivos de la educación: la clasificación de las metas educacionales : manuales I y II.* Traducción de Marcelo Pérez Rivas; prólogo del Profesor Antonio F. Salonía. Buenos Aires: Centro Regional de Ayuda Técnica: Agencia para el Desarrollo Internacional (A.I.D). 1971.

-Cameron, Lynne. (2001). *Teaching Languages to young learners*, Cambridge University Press, United Kingdom.

- Gardner, H. (1983). *Estructuras de la mente: Teoría de las inteligencias multiples*

- Perez, I (2013) " Uso de Recursos Educativos Abiertos para el aprendizaje integrado de contenidos y lenguas extranjeras (AICLE)" en: INTEF

-Nawby,D and others, *European portfolio for students teachers of languages*, 2007

-Richards, J (2006) *Communicative Language Teaching Today*, Cambridge University Press, New York.

-Rigal, Robert. Psychomotor development, learning and education in preschool and primary. Inde editorial: 2006.

-Scrivener, Jim (1994). Learning Teaching, (2ºEd). Malasya: Macmillan ELT.

-Varas, M y Zariquiei, F *Técnicas formales e informales de aprendizaje cooperativo*

-Wanda C. Rodríguez Arroncho, "El legado de Vygotsky y de Piaget a la Educación", Revista Latino Americana de Psicología, 1999.

-WILLIS, Jane, "Task-Based learning", English Teaching, Professional, 1998, 6 pages.

9. WEBGRAFY

-OneStopEnglish:(http://www.onestopenglish.com/methodology/methodology/teaching-approaches/teaching-approaches-task-based-learning/146502.article) Date 14/06/16.

-OneStopEnglish:(http://www.onestopenglish.com/article-clil-for-elt/550056.article) Date 10/06/16.

-OneStopEnglish:(http://www.onestopenglish.com/clil/methodology/articles/article-what-is-clil/500453.article) Date 10/06/16.

-SK:(http://www.sk.com.br/sk-vygot.html) Date 08/06/16.

-Teaching English :(https://www.teachingenglish.org.uk/article/multiple-intelligences) Date 12/06/16.

-WikiSpaces/Didle-Grado:(https://didle-grado.wikispaces.com/10-T1-+LANGUAGE+ACQUIS.THEORIES) Date 09/06/16.